REMARKS/ARGUMENTS

The non-final Office Action of May 25, 2010, has been reviewed and these remarks are responsive thereto. Claims 1, 17, 31, and 52-55 have been amended, claims 7-10, 21-23, 48, 49, and 51 have been canceled without prejudice or disclaimer, and new claims 65-72 have been added. No new matter has been introduced. Claims 1, 17, 31, and 52-72 are pending in this application upon entry of the present amendment. Reconsideration and allowance of the instant application are respectfully requested.

Rejections Under 35 U.S.C. § 112

Claims 57 and 60 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Office alleges that the limitation "each of the different video channels corresponding to the different sides of the polyhedron is a video channel selected by a user for displaying on the polyhedron," is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants traverse. Claims 57 and 60 are fully supported by the specification as originally filed. For example, the instant specification states, "FIG. 4A is a flow diagram for a single-tuner embodiment of the present invention, in which the image-oriented EPG system 200 displays real-time snapshots of selected channels in the individual image areas 205A-X. At processing block 401, the tuner 301, enhanced with scene detection capabilities 304, sequentially tunes through the list of channels 410 selected by the viewer." (Specification, p. 17.) The specification further states, "In an alternative embodiment, the reduced size displays in individual image areas 205A-X can be mapped onto one or more independent or geometric surfaces, e.g. the surfaces of a polyhedron (e.g. a cube)..." (Specification, p. 13.) In view of these sections, as well as the additional sections in the specification providing further support for claims 57 and 60, Applicants request reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

Rejections Under 35 U.S.C. § 103

Claims 1, 10, 17, 31, 48, 49, 51, 53, and 55-64 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 6,405,371 (Oosterhout), in view of U.S. Patent No.

6,411,337 (Cove). Claims 7-9, 21-23, 52, and 54 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Oosterhout, in view of Cove, and further in view of U.S. Patent No. 6,549,643 (Toklu). Applicants respectfully traverse these rejections for at least the following reasons.

Amended claim 1 recites, inter alia:

> capturing a first portion of the first video stream;
>
> converting the first captured portion of the first video stream into a first reduced resolution thumbnail video stream;
>
> displaying the first reduced resolution thumbnail video stream on a side of the graphical representation of the polyhedron...

Neither Oosterhout nor Cove, alone or in combination, teaches or suggests any of these features of amended claim 1. Oosterhout describes a mosaic of sub-images of different channels displayed on an electronic programming guide. (Abstract; FIG. 9.) However, Oosterhout uses only fixed sub-images (i.e., snapshots), it does not teach or suggest capturing a video stream, converting a video stream into a reduced resolution thumbnail video stream, or displaying a reduced resolution thumbnail video stream. Oosterhout also does not disclose using polyhedrons for displaying, and thus does not teach or suggest displaying anything on a "side of the graphical representation of the polyhedron," as recited in amended claim 1.

Cove similarly fails to teach or suggest these features of amended claim 1. The relied-upon portions of Cove only describe a rotatable function menu in which different video functions are displayed and available for selection by the user. (Figs. 2 and 6; col. 6, lines 52-61.) However, Cove's rotatable function menu does not display any video or programming image whatsoever, but only displays the function menu options stored in advance by the system. Thus, the graphics displayed in Cove's rotatable function menu are not created through any process of capturing and converting video, but are merely accessing previously stored graphics from the memory of Cove's system. Neither these cited portions nor any other portion of Cove teach or suggest capturing a video stream, converting a video stream into a reduced resolution thumbnail video stream, or displaying a reduced resolution thumbnail video stream, as recited in claim 1.

For similar reasons, any attempted combination of Oosterhout and Cove also fails to teach or suggest the recited limitations of claim 1. As discussed above, neither Oosterhout nor Cove

teaches or suggests capturing a video stream, and thus neither reference is capable of performing (or would have any reason to perform) converting a video stream into a reduced resolution thumbnail video stream, as recited in claim 1. Further, neither Oosterhout nor Cove, alone or in combination, would be capable of displaying a thumbnail video stream on a side of a graphical representation of a polyhedron.

Toklu relates to video streams, and specifically, to selecting key frames to generate a visual summary of video. However, like Oosterhout and Cove, Toklu does not teach or suggest converting a video stream into a reduced resolution thumbnail video stream, or displaying a reduced resolution thumbnail video stream on a side of a graphical representation of a polyhedron, as recited in claims 1, 17, and 31. Thus, Toklu fails to overcome the above-discussed deficiencies of Oosterhout and Cove.

Therefore, for at least the above reasons, amended claim 1 is not obvious over the cited references. Independent claims 17 and 31 have been amended similarly to claim 1 and thus are not obvious in view of the cited references for similar reasons. Dependent claims 52-64 are not obvious over the cited references for at least the same reasons as their respective base claims, as well as based on the additional features recited therein.

For example, claims 53 and 55 recite, in part, "rendering a plurality of reduced resolution thumbnail video streams on different sides of the polyhedron." Neither Oosterhout, nor Cove, nor Toklu teaches or suggests a rendering a polyhedron including a plurality of reduced resolution thumbnail video streams on its different sides. For instance, Oosterhout's sub-image mosaic requires multiple different sub-images tiled across the bottom of the display screen in order to show a plurality of fixed images from different channels. (Fig. 9.)

Additionally, claims 62-64 each recite performing at least one of, "moving the graphical representation of the polyhedron to a different one of the individual image areas in the display of the electronic programming guide," and/or "changing the size of the graphical representation of the polyhedron within the display of the electronic programming guide." The Office alleges that Cove teaches these features by simply moving/rotating the rotatable function menu to display a different menu option. (Office Action, pp. 19-20.) However, Cove's function menu only moves or rotates in place on the display screen, it never "mov[es] the graphical representation of the polyhedron to a different one of the individual image areas in the display of the electronic

programming guide," nor does it ever "chang[e] the size of the graphical representation of the polyhedron within the display of the electronic programming guide," as recited in claims 62-64.

New Claims

Applicants have added new claims 65-72 to more fully claim the invention. Claims 65, 68, and 71 each recite, "displaying a plurality of graphical representations of polyhedrons in the individual image areas in the electronic programming guide," and claims 66, 69, and 72 further recite, "wherein each of the plurality of graphical representations of polyhedrons corresponds to a different set of video programming channels." Cove describes, at most, a single polyhedron displaying a preselected set of graphics used in Cove's function menu. None of other cited references discloses any sort of polyhedron. Thus, none of the references, alone or in combination, teaches or suggests "displaying a plurality of graphical representations of polyhedrons ... in the electronic programming guide," or "wherein each of the plurality of graphical representations of polyhedrons corresponds to a different set of video programming channels," as recited in new claims 65-66, 68-69, and 71-72.

Claims 67 and 70 recite, "wherein displaying the first reduced resolution thumbnail video stream comprises using a graphics accelerator to map the pixels of the first reduced resolution thumbnail video stream onto the side of the graphical representation of the polyhedron." As discussed above, none of the cited references, alone or in combination, is capable of converting a video stream into a reduced resolution thumbnail video stream, or is capable of displaying a thumbnail video stream on a side of a graphical representation of a polyhedron. Similarly, none of the cited references performs, or has any reason to perform, "using a graphics accelerator to map the pixels of the first reduced resolution thumbnail video stream onto the side of the graphical representation of the polyhedron," as recited in new claims 67 and 70.

Therefore, claims 65-72 are allowable over the cited references for at least these additional reasons.

CONCLUSION

Based on the foregoing, Applicants respectfully submit that the application is in condition for allowance and a Notice to that effect is earnestly solicited. Should the Examiner believe that anything further is desirable in order to place the application in even better form for allowance, the Examiner is respectfully urged to contact Applicants' undersigned representative at the below-listed number.

Respectfully submitted,

BANNER & WITCOFF, LTD.

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